STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS DIVISION
SUITE 1800, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 253-1122

CLAY BRIGHT
COMMISSIONER

BILL LEE
GOVERNOR

TO: Will Reid
Assistant Chief Engineer of Operations

FROM: Brad Freeze, Director of Traffic Operations

SUBJECT: **Proprietary Item Request and Justification**
City of Crossville

1) **Traffic Signal Controllers**
2) **Traffic Signal Conflict Monitors**
3) **Traffic Signal Detection Equipment**

1) **Traffic Signal Controllers:** The City of Crossville is requesting that Peek controllers be used in all signalization projects within the City over the next three years where Federal and/or State funding is used. The controller equipment includes Peek 3000E controllers. The following are justification items for this request:

   The City of Crossville currently operates maintains Peek controllers at all 43 signalized intersections within the City's jurisdiction. This request is necessary to maintain synchronization with the existing traffic signal systems.

   The City of Crossville has been extensively trained to install, operate, maintain, program, and troubleshoot Peek controllers. By utilizing the Peek controller as the standard for the City, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

2) **Traffic Signal Conflict Monitors:** The City of Crossville is requesting that Peek conflict monitors be used in all signalization projects within the City over the next three years where Federal and/or State funding is used. The conflict monitor equipment includes Peek Double Diamond conflict monitors. The following are justification items for this request:

   The City of Crossville currently operates maintains Peek conflict monitors at all 43 signalized intersections within the City's jurisdiction. This request is necessary to maintain synchronization with the existing traffic signal systems.

   The City of Crossville has been extensively trained to install, operate, maintain, and troubleshoot Peek conflict monitors. By utilizing the Peek controller as the standard for the City, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

3) **Traffic Signal Detection Equipment:** The City of Crossville is requesting that Wavetronix traffic signal radar detection equipment be used in all signalization projects within the City over the next three years where Federal and/or State funding is used. The radar detection equipment includes both SmartSensor Matrix for stop bar detection and the SmartSensor Advance for advanced approach detection. This request is based on the necessity to provide highly reliable detection for the synchronization with the existing traffic signal systems operated and maintained by the City. The following are justification items for this request:

   The City of Crossville is currently has Wavetronix radar detection at nine intersections which includes the installation of Wavetronix radar detection at seven intersections over the past three years. Because of the re-occurring maintenance costs of replacing loops with a failure rate of 75% of the signal loops within 1.5 years of installation, the City has standardized plans to install Wavetronix radar detection on all new signals and convert existing signals as the current loop detection fails. The City has seen excellent performance with this system for a number of years with little or no maintenance required. In addition, a cost savings over time is expected because this system will not have to be replaced when milling/resurfacing is done as compared to loop installations.

   The City of Crosville staff has been extensively trained to install, operate, maintain, and troubleshoot the Wavetronix detection system. By utilizing this detection system as the standard for the City, there will be a cost savings in stocking replacement equipment and will result in faster and less costly repair.

I, Brad Freeze, Director of the Traffic Operations Division of the Tennessee Department of Transportation, do hereby certify that in accordance with the requirements of 23 CFR 635.411(a) (2) that the patented or proprietary items listed above are essential for the synchronization of existing facilities.

Assistant Chief Engineer of Operations

8/5/19
Date

City of Crossville
Engineering Department

392 N Main St.
Crossville, TN 38555
Phone 931-484-5113
Fax 931-484-7713

July 8, 2019

To: Steve Bryan
Tennessee Department of Transportation
505 Deaderick St. Suite 1200
Nashville, TN 37243

RE: Request for Proprietary Traffic Signal Products Certification.
Traffic Signal Controller, Conflict Monitors, and Vehicle Detection

Dear Mr. Bryan:

The City of Crossville would like to request the use of PEEK Controllers, PEEK Conflict Monitors, and WAVETRONICS Vehicle Detection on all TDOT projects which include traffic signals that are maintained by the City of Crossville, whether they are City or County owned.

Currently there are forty-three (43) signalized intersections that the City of Crossville operates and maintains. PEEK Controllers and PEEK Conflict Monitors operate all forty-three (43) of the signalized intersections. Currently there are nine (9) signalized intersections which utilize WAVETRONICS Vehicle Detection. The City plans to install this detection system on all new signals and convert existing signals as the current detection fails.

The City of Crossville's signal technicians have been extensively trained to maintain, program, and troubleshoot PEEK Traffic Signal Controllers, PEEK Conflict Monitors, and WAVETRONICS Vehicle Detection. We believe continuing the use of PEEK and WAVETRONICS equipment will allow the signal systems to be maintained and repaired efficiently with minimized down time due to parts in stock, and familiarity with this product line.

Should you have any questions please call me at 931-456-6172.

Sincerely,

Tim Begley
Director of Engineering